Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Wyaconda River

Waterbody Segment at a Glance:

County: Lewis
Nearby Cities: Wayland
Length of impairment: 8.0 miles
Pollutant: Manganese (Mn)
Source: Natural source


State map showing location of watershed

TMDL Priority Ranking: Low

Description of the Problem

Beneficial uses of Wyaconda River

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health associated with Fish Consumption
- Boating and Canoeing
- Drinking Water Supply

Use that is impaired

- Drinking Water Supply is listed as impaired because of Manganese (Mn); however, the river is not used as a source for public drinking water supplies.

Standards that apply

- The Missouri Water Quality Standards in are found in 10 CSR 20-7.031(4)(E) for Taste- and Odor-Producing Substances:
  Table A in the Standards limits manganese in drinking water to 50 µg/L (micrograms per liter or parts per billion). This is an aesthetic standard that seeks to protect a water supply against possible taste, odor and laundry staining problems caused by excessive amounts of manganese. Exceedence of this standard is not a threat to human health.

- The State Drinking Water Standards (10 CSR 60- recommend treating drinking water to a level 50 µg/L of Manganese (10 CSR 60-4).
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Background Information and Water Quality Data

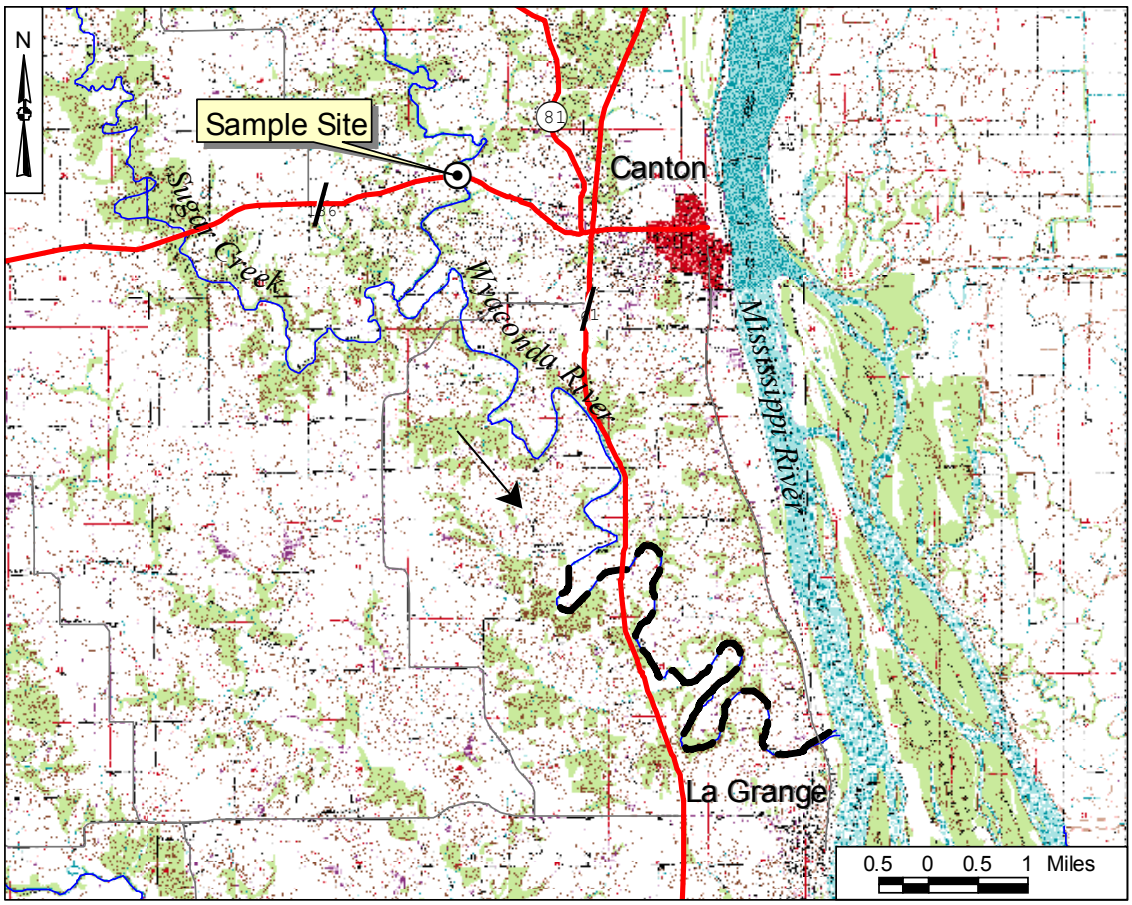
The MO Public Drinking Water Standards include Manganese (Mn) as a secondary contaminant. Manganese can be removed from drinking water supplies and is when necessary. DNR is unaware

of any drinking water supply that currently uses the impaired section of the Wyaconda River as a drinking water supply.

Monitoring of the Wyaconda River near Canton, Missouri, from 2000 through 2002 has shown an average level of dissolved manganese of 178 µg/l. The city of Canton does not use the Wyaconda River as their water supply, but rather uses alluvial wells near the Mississippi River.

There are no known significant man-made sources of manganese in this watershed. The source of the manganese is believed to be from baseflow groundwater. In dry periods, much of the river's flow will be baseflow groundwater with a higher concentration of Mn because there is less dilution from precipation. Several other streams in Northeastern Missouri also have elevated levels of dissolved manganese and the similar stream characteristics.

Wyaconda River in Lewis County, Missouri, with Sampling Site



Impaired segment Direction of Flow

Levels of Dissolved Manganese in the Wyaconda River near Canton, Missouri, 2000-2002.

Site Name	Year	Month	Day	Dissolved Mn (µg/L)
Wyaconda River 2 miles west of Canton, MO	2000	3	21	151
Wyaconda River 2 miles west of Canton, MO	2000	5	25	307
Wyaconda River 2 miles west of Canton, MO	2000	8	31	355
Wyaconda River 2 miles west of Canton, MO	2000	11	28	358
Wyaconda River 2 miles west of Canton, MO	2001	6	22	5
Wyaconda River 2 miles west of Canton, MO	2001	3	8	288
Wyaconda River 2 miles west of Canton, MO	2001	9	10	88.8
Wyaconda River 2 miles west of Canton, MO	2001	9	24	9.77
Wyaconda River 2 miles west of Canton, MO	2002	2	6	214
Wyaconda River 2 miles west of Canton, MO	2002	6	13	3.9
Mean (Average) Dissolved Manganese				**178.047**

Source: Missouri Department of Natural Resources

For more information call or write:

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